NOTE II.

REPTILES AND BATRACHIANS FROM SURINAM

BY

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(Plate 7). [1])

During the last years the interior of Surinam was explored by several little expeditions. Though topographic research was the main purpose of these expeditions, still biology profited by them, as in most cases the physician accompanying the expedition was charged with collecting.

Dr. H. van Cappelle, who organized the first of these expeditions, explored the neighbourhood of the river Nickeri and its right tributary, the Fallawatra, in the last half of the year 1900, and penetrated as far as the mountains forming the watershed between Nickeri and Coppename. Being a geologist, he himself took care of the zoological department.

From August till December of the year 1901 the basin and the sources of the Coppename were the subject of inquiry of another expedition, whose physician Mr. H. A. Boon was charged with collecting.

The river Saramacca and its neighbourhood were explored from Oct. 1902 till the beginning of May 1903 by an expedition, which was accompanied by Dr. P. J. de Kock, sometime naval surgeon in H. M. Service, who took care of the zoological collections.

1) All the figures are photographs in natural size, taken from the typical specimens.

In the year 1903 an exploration of the rivers Marowyne, Lawa and Gonini was undertaken by the Gonini-expedition, whose physician Mr. G. M. Versteeg also acted as zoologist.

The zoological collections resulting from these four expeditions were kindly presented to the National Museum of Natural History, and though the collection is not a very large one, still it may be stated that at least the herpetological section is very interesting. Besides seven species, hitherto not represented in our Museum, which species are marked in our list with an asterisk, the collection of 43 species of reptiles and 15 à 16 species of batrachians, contains 5 new species. I take the liberty of dedicating four of these new species to the four collectors, in honour of their most valued and successfull exertions to improve our knowledge of the Fauna of Surinam.

Crocodilia.

1. *Caiman trigonatus* Schneid.

One skin of an adult specimen, captured by the Coppename-expedition.

Ophidia.

2. *Typhlops* spec.?

One large, fingerthick, yellow specimen, collected by the Coppename-expedition, is so much mutilated, probably by ants, that I am unable to make out to which species it belongs.

3. *Glauconia albifrons* Wagl.

One specimen by Dr. van Cappelle at the Upper-Nickeri; three specimens captured Sept. 12th '01 by the Coppename-expedition, and one specimen collected by the Saramacca-expedition on March 30th '02 at Jan Basi Gado.

*4. *Glauconia macrolepis* Ptrs.

One specimen, collected in dry wood by the Saramacca-expedition at Toegoemoetoe on February 19th '03, very well agreeing with Peters' description, and Jan's figure in the Iconographie générale, livr. 2, pls. V and VI, fig. 10.

5. *Epicrates cenchris* Lin.

One specimen captured by the Gonini-expedition on Aug. 28th '03 near the Gonini.

6. *Helicops angulatus* Lin.

Two specimens by the Saramacca-expedition.

7. *Drymobius Boddaertii* Seetzen.

One specimen by the Coppename-expedition.

8. *Spilotes pullatus* Lin.

One specimen collected on Sept. 9th '03 near the Gonini. According to Mr. Versteeg this snake is called »Padslang" and »Toddy-snake".

9. *Coluber corais* Boie.

One specimen by the Saramacca-expedition.

10. *Herpetodryas carinatus* Lin.

Specimens were collected by the Coppename-, the Saramacca- and the Gonini-expeditions. Mr. Versteegh, who captured one specimen on Sept. 12th '03 near the Gonini, mentions that this snake is called »Red-tail".

11. *Herpetodryas fuscus* Lin.

One specimen collected at Tranga-Bakka at an altitude of 450 M. by the Gonini-expedition.

12. *Leptophis liocercus* Wied.

One specimen collected by Dr. van Cappelle at the Lower-Nickeri.

13. *Aporophis lineatus* Lin.

One specimen from Paramaribo by Dr. van Cappelle.

14. *Rhadinea cobella* Lin.

One specimen from the Lower-Nickeri by Dr. van Cappelle.

15. *Petalognathus nebulatus* Lin.

One specimen from Paramaribo by Dr. van Cappelle, another captured on Oct. 6th '03 near the Gonini.

16. *Liophis reginae* Lin.

One specimen by the Saramacca-expedition.

17. *Xenodon severus* Lin.

One young specimen by the Saramacca-expedition.

18. *Xenodon Merremii* Wagl.

One specimen collected Aug. 13th '01 by the Coppename-expedition.

19. *Atractus badius* Boie.

One specimen collected by the Gonini-expedition, resembling Boulenger's var. D in having the snout black, back of head yellow followed by a black collar, and showing the alternating series of black spots, which spots in our specimen are arranged in pairs separated by a light, narrow interspace; but differing from that variety in missing the brown dots on the belly, the belly being uniformly light coloured.

20. *Philodryas viridissimus* Lin.

One specimen captured Nov. 11th '03 in the Manika-swamp by the Gonini-expedition is labelled »Papagaaislang".

21. *Oxybelis argenteus* Daud.

One specimen collected Oct. 10th '03 near the Gonini is labelled »Zweepslang".

22. *Oxybelis acuminatus* Wied.

One specimen by the Saramacca-expedition.

23. *Homalocranium melanocephalum* Lin.

One specimen captured by the Gonini-expedition in the Cottica-mountains.

24. *Elaps Hemprichii* Jan.

One specimen captured Sept. 12th by the Coppename-expedition; another, semi-adult, at Mindrineti on Nov. 8th '02 by the Saramacca-expedition. According to Dr. de Kock this snake is named by the aborigines »Koralensneki", »Goutoesneki" and »Toehade sneki".

25. *Elaps psyches* Daud.

One specimen by the Saramacca-expedition.

26. *Lachesis atrox* Lin.

One specimen by the Coppename-expedition, and one specimen captured at Hanie Nov. 25th '03 by the Gonini-expedition.

Lacertae.

27. *Gonatodes albogularis* D. & B.

Three specimens, one of them showing in the coloration of the upper parts a striking resemblance with Boulenger's *Gonatodes annularis*, collected by the Coppename-expedition.

28. *Gonatodes Boonii*, n. sp. (Plate 7, figs. 1 and 2).

Habit stout. Head broad, one and two thirds as long as broad, snout short rounded, the distance from the centre of the eye to the tip of the snout equals the distance from the centre of the eye to the earopening. Interorbital space narrow, concave; earopening round and rather small. Limbs moderate, digits and toes slender, narrow at the base, scales under the basal joint small, subequal. Nails rather strongly curved with three scales at the base, one upper and two sideways. Upper parts covered with small granules, those on the snout but very little larger than those on the back.

Rostral pentagonal with median cleft, but little broader than high, followed by two rather large post-rostral shields, one on each side of the cleft. Nostril pierced between the rostral, the post-rostral and four granules of the snout. The suture between the rostral and the first labial runs in the direction of the nostril, the latter not being in contact with the first labial. Six upper labials, the fifth small, the sixth very small; six lower labials, the fourth rather small, the fifth small, the sixth very small. Mental large, in contact with two post-mentals. Gular region covered by small granules.

The granules on the anterior half of the superciliary rim conical, those on the middle just above the centre of the eye forming small projecting spines. Abdominal scales rather large, hexagonal, imbricate.

Tail stout, cylindrical, covered at the root on its upper part with granules, somewhat larger than those on the back, on the lower side with large scales, those of the median series not transversely dilated. On the posterior part of the tail (probably regenerated) a series of transversely dilated scales is to be seen at the lower side.

Upper parts dark green, covered all over with larger or smaller lighter spots composed by one, two or more granules of a light green colour. Belly lighter without spots; gular region with large, greenish spots. Tail without spots, below lighter than above.

One specimen collected by the Coppename-expedition.

29. *Thecadactylus rapicaudus* Houtt.

One specimen from Tawiari by Dr. van Cappelle, and one specimen from Lawa, collected by the Gonini-expedition on Oct. 22th '03.

According to Dr. van Cappelle as well as to Mr. Versteegh the vernacular name of this species is »Kwakwa-sneki".

30. *Anolis punctatus* Daud.

One single male specimen from the Upper-Nickeri by Dr. van Cappelle, and a female specimen collected by the Coppename-expedition.

'31. *Anolis lentiginosus* O'Shaughn.

One specimen pretty well agreeing with Boulenger's description and figure of the typical specimen. By the short and broad head, which is shorter than the tibia, by the short and angular canthus rostralis, by the large scales on the vertebral region which are nearly as large as the ventrals and by the absence of an enlarged occipital this species is characterized at first sight. The tail is long and covered with rather large, imbricate, keeled scales. In our specimen the tip of the tail is somewhat swollen, dark coloured and separated from the rest of the tail by a circle of light coloured scales. The dark cross-band between the eyes also covers the eye-lids; a few dark cross-bands on the back, and a somewhat broader dark spot on either side above the insertion of the hind limb.

One single specimen was collected at Hanie on Dec. 7th '03 by the Gonini-expedition.

32. *Polychrus marmoratus* Lin.

One specimen from the Tawiari-creek by Dr. van Cappelle.

33. *Ophryoessa superciliosa* Lin.

One specimen by the Coppename-expedition.

34. *Uraniscodon umbra* Lin.

Two specimens by the Saramacca-expedition, and one from the Tawiari-creek by Dr. van Cappelle.

35. *Uraniscodon plica* Lin.

One specimen by Dr. van Cappelle from Fallawatra, two

specimens from the Upper-Saramacca, and two specimens from Hanie by the Gonini-expedition. Mr. Versteeg adds in a note: the vernacular name is »Wakak"; whilst Dr. de Kock mentions that his specimen captured on Nov. 17th '02 is regarded as venomous by the natives, who call it »Kwakwasneki".

36. *Urocentron azureum* Lin.

One specimen from Paramaribo, captured by Dr. van Cappelle.

37. *Tupinambis teguixin* Lin.

One specimen from Fallawatra by Dr. van Cappelle, and another collected by the Gonini-expedition.

38. *Centropyx calcaratus* Spix.

Two female specimens by the Saramacca-expedition, and another young female collected near the Gonini on Aug. 16th '03. This last specimen with a broad median yellowish band, which runs from the tip of the snout over the head till half-way the back, and with a light line, running on each side from the eye down to the sacral region.

39. *Ameiva surinamensis* Laur.

Specimens from Paramaribo and the Upper-Nickeri by Dr. van Cappelle, specimens from Maripaston by the Saramacca-expedition, and collected by the Gonini-expedition on Oct. 10th '03 near the Gonini.

40. *Cnemidophorus murinus* Laur.

One specimen from the Gonini, collected Oct. 9th '03.

41. *Arthrosaura Versteegii*, n. sp. (Plate 7, figs. 5 and 6).

Head somewhat depressed, snout short not very obtuse, body rather elongate. Nostril pierced in the middle of a single nasal. A broad frontonasal, two pentagonal praefrontals, forming a short suture; frontal hexagonal, somewhat larger than its distance from the tip of the snout, one and a half as long as broad; frontoparietals pentagonal with one side in contact; a pair of long parietals separated by an equally long but narrower interparietal, these three shields evenly truncate at the posterior end, the inner side of the parietals straight, the outer rounded.

Supra-oculars three, followed by a small shield, which is the first of four small shields bordering the parietals at the outer side. Behind each of the parietals and also behind the interparietal two small scales. One loreal bordered inferiorly by a small shield, being the first of a row of five small infra-orbitals. Seven upper- and six lower-labials. Earopening exposed. Temporal scales irregular, rather large. All the shields of the head smooth, without keels, but most of them provided with several small pits.

Chin-shields very large, the three anterior pairs forming a suture, behind these chin-shields two rows of rather small roundish scales, followed by a double longitudinal row of large gulars; collar-shields five in number, smaller than the gulars. Behind the rather indistinct collar the abdominal shields begin with a row of eight shields, viz. two large ones in the middle, flanked on each side by three smaller ones, which are arranged in a triangle. Fifteen transverse rows of abdominal shields, those of the four inner longitudinal rows very large, longer than broad, strongly rounded and overlapping posteriorly; the shields of the outer rows of abdominal shields gradually diminishing in size. A transverse row of three praeanals. Between these praeanals and the last row of (four) abdominals four small shields two on either side, each provided with a praeanal pore.

Dorsal shields narrow, hexagonal, lanceolate, imbricate, keeled in twenty-five rows beginning directly behind the parietals down to the sacrum [1]). Thirty nine rows of shields round the middle of the body, including the ventrals. Forelimbs with large shields, granulate under the arms, hind limbs with large shields anteriorly and inferiorly, hinder thighs granulate; five femoral pores on the right-, four on the left side.

Tail without groove along the sides, shields narrow forming regular verticillae, the upper and lateral ones keeled, sharply pointed, the lower ones smooth and rounded posteriorly.

1) Including the row with the white spot, on the sacrum (see figure).

Brown above, lower sides orange-coloured; a series of light coloured spots along the sides of the body from behind the head till above the fore limb; a double series of light spots on each side of the tail, the lower series much more distinct than the upper one. Upper- and lower labials spotted with black; throat uniform cream-coloured, without black spots.

This species very much resembles *Arthrosaura reticulata* O'Shaughn. from Ecuador, but differs from it in the number of transverse rows of scales, in the form of the frontal, in the arrangement of the praeanal scales, and the arrangement of the scales bordering the parietals, as figured by O'Shaughnessy in Proc. Zool. Soc. 1881, pl. XXII, fig. 1.

One specimen collected by the Gonini-expedition in the Cottica-mountains.

42. *Prionodactylus Kockii*, n. sp. (Plate 7, figs 3 and 4).

Habit slender, snout rather long. A great part of the rostral shield visible from above; frontonasal undivided, large; praefrontals forming a suture; frontal hexagonal, elongate, twice as long as broad, nearly as long as its distance from the tip of the snout; two postfrontals forming a suture; interparietal pentagonal, longer than broad, broader than the interparietals, posteriorly evenly truncate; median occipital as broad as the parietal, nearly twice as broad as long. Nostril pierced in a single nasal, a loreal and a freno-orbital. Five upper- and four lower labials. Chinshields: one anterior followed by four pairs of large shields forming a suture; two longitudinal rows of large gularshields. Five collarshields, the three median very large. Ventrals smooth, large, rounded posteriorly, in nineteen transverse rows and six longitudinal rows, those in the middle larger than the outer ones. Dorsal shields hexagonal, elongate, strongly keeled in twenty-six rows from the occipital down to the sacrum; the scales on the flanks very small. Thirty nine scales round the middle of the body including the ventrals. Four large praeanals, the anterior much larger than the posterior, forming a suture with this latter, the right one

and the left one not touching one another. Limbs with large shields, lower surface of arms, and hinder side of thighs granulate; femoral pores indistinct. Scales on the upper part of the tail hexagonal, keeled, those of the lower part smooth, larger. Brown above with a whitish vertebral band, from the occiput down to the beginning of the tail, lower parts cream-coloured, tail reddish.

One small specimen collected by the Coppename-expedition.

43. *Mabuia aurata* Schneid.

One specimen collected by the Saramacca-expedition.

Batrachia.

44. *Dendrobates tinctorius* Schneid.

Three adult specimens and one semi-adult, collected by the Coppename-expedition.

45. *Dendrobates trivittatus* Spix.

One specimen collected by Dr. van Cappelle near the Fallawatra.

*46. *Phryniscus flavescens* D. & B.

Five specimens, two semi-adult ones collected by the Saramacca-expedition at Toekoemoetoe on Febr. 3rd '02, and three adult ones from Lawa, collected Dec. 2nd '03 by the Gonini-expedition. They all agree in having short toes, the first of which is quite indistinct, and moderate fingers, the first very short and rudimentary, and in the absence of metatarsal, metacarpal and subarticular tubercles. They have the loreal region vertical with distinct canthus rostralis, the snout projecting, the nostril lateral, just above the symphisis of the mandible when the mouth is closed. The semi-adult specimens agree in coloration with Cope's *Atelopus spumarius*: the upper parts being of a dark brown colour with numerous narrow annuli of greenish-yellow, in one specimen these annuli meeting form a band from orbit to groin, lower parts yellow sparingly spotted with brown. In the three full-grown specimens the principal colour is yellow, with large black spots on the back, the flanks and the limbs, these spots flowing together in several places.

47. *Engystoma ovale* Schneid.

Three specimens from the Lower-Nickeri collected by Dr. van Cappelle.

*48. *Hylodes Gollmeri* Ptrs.

One specimen collected by Dr. van Cappelle.

49. *Hylodes grandoculis*, nov. spec.

Tongue large, slightly nicked behind, vomerine teeth indistinct, tympanum indistinct. Nostril much nearer the tip of the snout than the eye. Snout short rounded, with distinct canthus rostralis. Eyes very large and protruding, the distance between the outer parts of the eye measuring seven m.m. whilst the total length of our specimen amounts to seventeen m.m. Diameter of the eye as large as its distance from the tip of the snout, interorbital space as large as the upper eyelid. Disks well developed, first finger not longer than second. Toes slightly webbed at the base. Subarticular tubercles rather indistinct. Skin smooth with a few small tubercles scattered over the upper eyelid and the beginning of the back. Rufous-brown above, lighter on the sides. Limbs cross-barred, under parts whitish; throat speckled with brown.

One specimen collected Sept. 10th '01 by the Coppename-expedition.

50. *Bufo guttatus* Schneid.

Several specimens from various localities. Mr. Versteeg mentions that one specimen, captured on Nov. 23rd '03, was luminous, when living.

51. *Bufo marinus* Lin.

Several specimens from various localities. One gigantic specimen measuring 20,5 cm. from snout to vent was captured by the Gonini-expedition in the neighbourhood of the Kotelolo-falls.

52. *Bufo typhonius* Lin.

Several specimens from various localities.

*53. *Bufo granulosus* Spix.

One specimen collected by Dr. van Cappelle at the Lower-Nickeri.

54. ? *Bufo diptychus* Cope.

Two small specimens captured by the Saramacca-expedition agree with this species in having an indistinct tympanum, a lateral dermal fold continuous with the trilateral parotoids. Their colour is light brown with deep brown spots, a deep brown chevron-shaped band between the orbits and a light vertebral line. In our collections are three similar specimens from Montevideo.

55. *Hyla maxima* Laur.

One specimen collected at the Upper-Nickeri by Dr. van Cappelle.

*56. *Hyla Leprieuri* D. & B.

One specimen collected by Dr. van Cappelle at the Lower-Nickeri.

*57. *Hyla fasciata* Gthr.

One adult and one young specimen collected at Toekoemoetoe by the Saramacca-expedition.

58. *Hyla rubra* Daud.

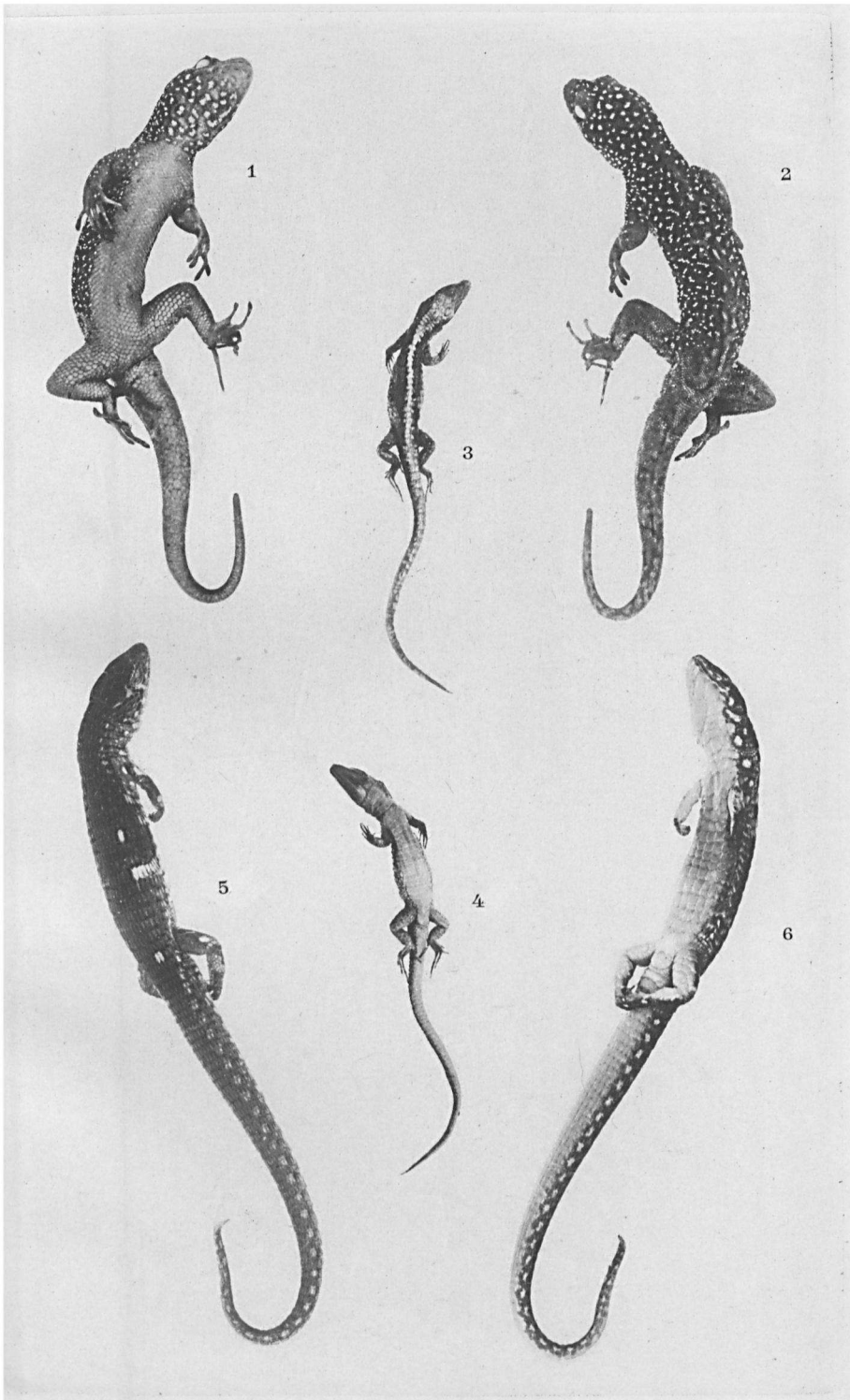
One specimen captured at Paramaribo by the Coppename-expedition, another from the Lower-Nickeri by Dr. van Cappelle.

59. *Hylella Cappellei*, nov. spec.

Tympanum indistinct, tongue round, very slightly nicked. Fingers one third webbed, first smaller than second. Toes two thirds webbed. Head broader than long, snout rounded, somewhat larger than the diameter of the orbit. Canthus rostralis very indistinct, loreal region oblique. Disks of fingers not much developed. The hind limb being carried forward along the body, the tibiatarsal articulation reaches the tip of the snout.

Colour whitish, with microscopical small black spots all over the head and the back and the upper parts of the limbs, except the upper eyelid which is of a uniform opaque white colour. Under parts whitish.

One specimen collected by the Saramacca-expedition.



1 & 2. Gonatodes Boonii *Lidth.* 3 & 4. Prionodactylus Kockii *Lidth.*
5 & 6. Arthrosaura Versteegii *Lidth.*